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Diplectroninae of Sri Lanka (Trichoptera: Hydropsychidae)

Oliver S. Flint, Jr.

Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560-0105, U.S.A.

Abstract.—The subfamily Diplectroninae of Sri Lanka is revised. The male genitalia of the lectotypes of the three described species, *Diplectrona papilionacea* (Hagen), *D. maligna* (Hagen) and *D. taprobanes* (Hagen), are figured and diagnostic notes and distributions given. Three new species, *D. malickyi, D. longistyla* and *D. ingens* are described, figured and distributions presented, and *D. kirimaduhela* Schmid is newly synonymized with *D. maligna.* The genus *Diplectronella* Ulmer, type species *D. taprobanes,* is synonymized with *Diplectrona* Westwood, type species *D. felix* McLachlan.

The Trichoptera, or caddisflies, of Sri Lanka (or Ceylon) have been relatively well studied in the latter half of the 1900's (Schmid 1958, Malicky 1973, Chantaramongkol & Malicky 1986). Yet new collections continue to produce new and undescribed species (Flint 2000). Recent routine curation of large numbers of unsorted Sinhalese caddisflies in the collection of the National Museum of Natural History (NMNH) has resulted in the discovery of undescribed species in many genera. Unless marked otherwise, all material listed in this paper is in the collection of the NMNH. This paper is another contribution to the understanding of the Sri Lankan fauna.

Hagen in 1858 and 1859 produced the seminal study on the "Neuropteroid" fauna of the island, in which he described or listed 32 species of Caddisflies out of a total of 143 species of "Neuropteroids." In this work he described four species of *Hydropsyche,* one of which, *H. mitis,* is a species of *Tinodes* in the family Psychomyiidae. Ulmer (1928) transferred the other three species, *H. taprobanes, H. papilionacea,* and *H. maligna* to the subfamily Diplectroninae, placing the first in *Diplectronella* and the other two in *Diplectrona.* Mosely (1931) gave a good redescription with figures of the male genitalia of *D. taprobanes.* In addition he proposed a suite of characters by which the genera *Diplectrona* and *Diplectronella* could be distinguished: the latter lacks fork 1 in the hindwing and the internal reticulate sacs in the male abdomen. He also stated that the male genitalia are "rather more simple than in *Diplectrona,* the intermediate appendages being apparently wanting." When I compare the male genitalia of *D. taprobanes* with the type species of *Diplectrona, D. felix* which has fork 1 and two pairs of reticulate sacs, I find a total concordance of genital structures in the two with only minor differences in their shapes. Considering the six Sinhalese species here treated, we find three correspond to *Diplectronella,* one (*D. maligna*) has fork 1 but no internal sacs, and two (*D. papilionacea* and *D. malickyi*) have fork 1 and one pair of internal sacs. The male genitalia of all six are so similar as to be barely separable. In the New World, the North American *D. modesta* has fork 1 but no internal sacs, while the Mexican *D. chiapensis* also has fork 1 and one pair of internal sacs and both have the Sinhalese type of male genitalia. A superficial survey of the southeast Asian species shows the genital structures to be identical to those of the

above species, but nothing is mentioned concerning fork 1 or internal sacs. The species in South Africa, Australia, New Zealand, and some species in New Guinea, mostly have fork 1, and two pairs of internal sacs, but the genitalia are so different in structure that they can hardly be considered congeneric. Considering this assortment of characteristics I find no way to continue the recognition of *Diplectronella* based on the presence or absence of fork 1 and internal sacs and must place the genus in synonymy of *Diplectrona* (NEW SYNONYMY).

During a visit to the Natural History Museum, London in July 2000 while I was searching for the example that was the basis of Ulmer's 1906 description of *D. papilionacea,* I discovered "types" of three species Kimmins had designated in 1958. Further search revealed that these had never been published, perhaps because of the appearance of Schmid's study in that same year. These examples were borrowed and studied with the result that one of the species is found to be *D. maligna,* the second *D. malickyi,* and the third, including the Ulmer specimen, *D. ingens.* I have refrained from mentioning his MS names so as to avoid giving any status to them, but included the examples in material examined. In addition I borrowed the three examples mentioned by Schmid (1958) as *Diplectrona* spp. The cleared genitalia were carefully compared with those of the other species in the genus from the island. Although the female genitalia offer only subtle differences between the species, these seem to match closely those of *D. papilionacea.*

To aid in the recognition of the insular species, I have prepared new figures from the Hagen lectotypes as well as the undescribed species. The males of the six species may be distinguished by the following key. The females are easily separable into two groups based on the presence or absence of fork 1, with some species further distinguished by size or color.

Key to Sinhalese *Diplectrona* Species

1. Fork 1 present in hind wing 2
   Fork 1 absent in hind wing 7
2. Males 3
   Females 5
3. With a single pair of reticulate sacs in abdomen; forewing either fuscous with white maculae or brown with stramineous maculae 4
   Lacking internal abdominal sacs; forewing uniformly fuscous ..... *D. maligna*
4. Eyes large, in frontal aspect, eye width greater than interocular distance; forewing fuscous with white maculae ..... *D. malickyi*
   Eyes normal, in frontal aspect width barely half that of interocular distance; forewing brown with stramineous maculae ..... *D. papilionacea*
5. Forewing fuscous, possibly with white maculae 6
   Forewing brown with many stramineous spots ..... *D. papilionacea*
6. Forewing uniformly fuscous *D. maligna*
   Forewing fuscous with scattered white maculae ..... *D. malickyi*
7. Males 8
   Females 10
8. Larger, forewing length 10.5–12 mm ..... *D. ingens*
   Smaller, forewing length 8–9 mm 9
9. Apex of phallus with two pairs of small sclerites; lateral filament of fifth sternum reaching to anterior half of seventh sternum ..... *D. taprobanes*
   Apex of phallus with one pair of sclerites; filament of fifth sternum attaining the eighth to base of inferior appendages ..... *D. longistyla*
10. Size larger, 12–15 mm ..... *D. ingens*
    Size smaller, 8–10 mm ..... *D. taprobanes and longistyla*

Diplectrona papilionacea (Hagen)
Figs. 1–6, 36

Hydropsyche papilionacea Hagen, 1859: 211.—Ross, 1952:33 [lectotype ♂].

Hydromanicus papilionaceus: Ulmer, 1906: 78 [description, venation ♀ paratype (BMNH); this specimen is *D. ingens,* q.v.].

Diplectrona papilionacea: Ulmer, 1928:316 [to *Diplectrona*].—Fischer, 1963:148; 1972:150 [bibliography].—Weaver, 1993: 41 [lectotype MCZ 11022, listed].

Diplectrona papillionacea [sic]: Schmid, 1958:118 [color, genitalia ♂ paratype].

Diplectrona spp.: Schmid, 1958:119 [three examples believed to be of 2 species].

A rather uncommon species that has been found in a wide range of elevations: 200 to 4000 ft. [ca. 60–1220 m.]. The three females mentioned by Schmid (1958) as *Diplectrona* spp. were studied. The female genitalia seem inseparable from those of *D. papilionacea,* although the differences between the species in this sex are minuscule. Even the venation and color pattern seem comparable although one example seems to have a deeper ground color of the forewing. However, the size of the forewing, 12–13 mm is strikingly larger than that in the other examples of the species (7–9 mm). In spite of their conformity in size, the genitalia and color pattern preclude them from being examples of *D. ingens.* It is possible that yet another species, closely related to *D. papilionacea* still exists in the highland of the island. Their data is included below.

The male genitalia of this species (Schmid 1958, pl. 21, figs. 5, 6) are hardly to be distinguished from those of its Sri Lankan congeners. It does have fork 1 in the hindwing, thus easily distinguishing it from the common *D. taprobanes* which it closely resembles in coloration. In addition to the long process of the fifth sternum it does have a pair of internal sacs attached between the seventh and eighth segments.

Material examined.—"Ceylon Nietner" [the original description states this is from Rambodde at 3500 to 4000 feet], "Hagen," "Type 11022," "Lectotype Hydropsyche papilionacea Hagen," ♂ lectotype, 2 paralectotypes ♂ (MCZ). Sri Lanka, Western Province, Colombo District, Padukka, 300′ [ca. 90 m.], 16 Nov 1970, O. S. Flint, Jr., 1♂, 2♀. Tunmodera, 200′ [ca. 60 m.], 17 Nov 1970, O. S. Flint, Jr., 1♀. Central Prov., Kandy Dist., Madugoda, 2600′ [ca. 790 m.], 24 Nov 1970, O. S. Flint, Jr., 1♀. 2.5 mi. [ca. 4.0 km.] NE Laksapana, 2700′ [ca. 825 m.], 16 Sep 1970, O. S. Flint, Jr., 1♀. Kiriwan Ellya, Sigira-Alle, 3000′ [ca. 910 m.], 28 Sep 1970, O. S. Flint, Jr., 1♀. Nuwara Eliya Dist., Nuwara Eliya, 24–27 Feb 1954, F. Schmid, 1♀; same, but 11 Mar 1954, 1♀; same, but 4 Apr 1954, 1♀ (CNC).

Diplectrona maligna (Hagen)
Figs. 7–12, 36

Hydropsyche maligna Hagen, 1859:211.—Ross, 1952:33 [lectotype ♂].

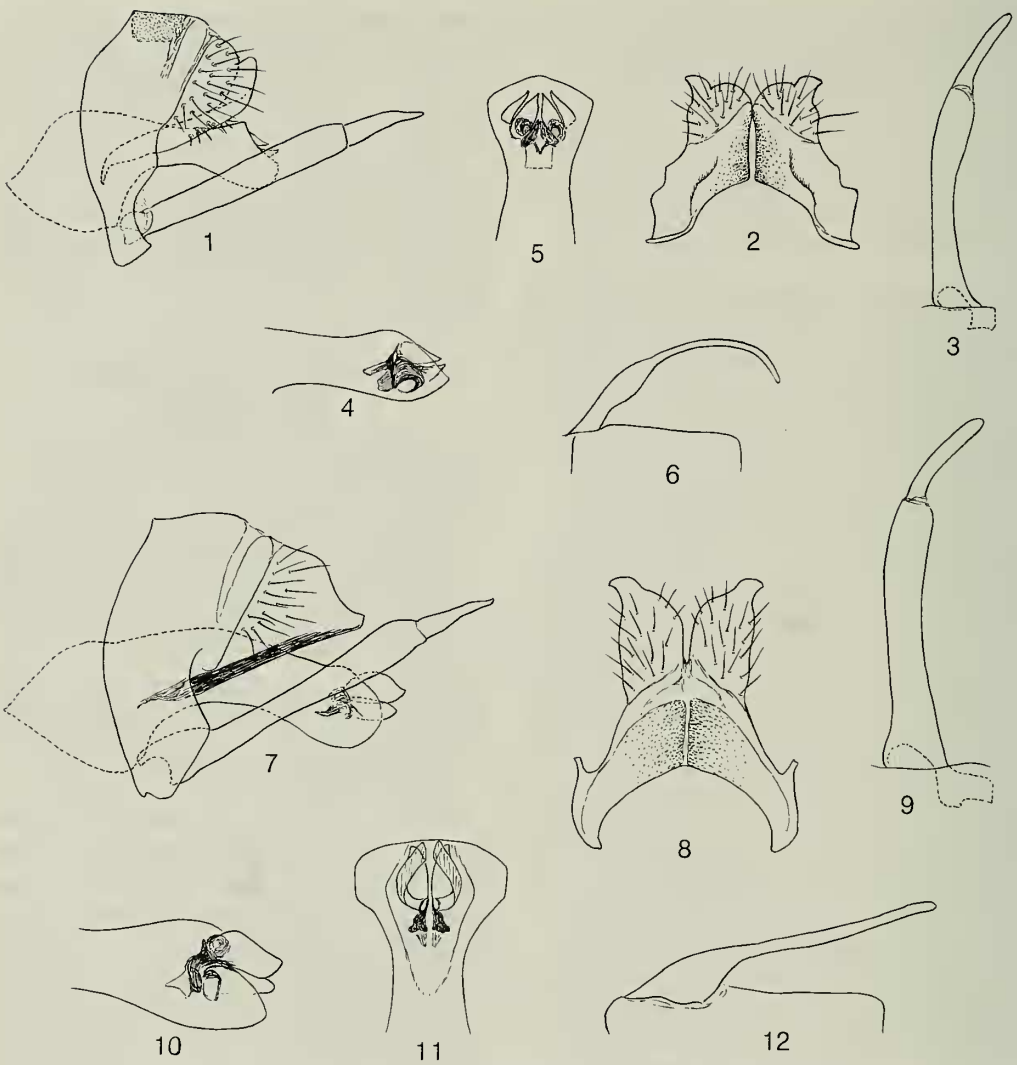
Diplectrona maligna: Ulmer, 1928:316 [to *Diplectrona*].—Schmid, 1958:118 [color ♀ paratype, identity unknown].—Fischer, 1963:146; 1972:150 [bibliography].—Weaver, 1993:41 [lectotype MCZ 11023, listed].

Diplectrona kirimaduhela Schmid, 1958: 117 [♂ genitalia].—Fischer, 1972:149 [bibliography]. NEW SYNONYMY.

This is a relatively uncommon species, found in the central highlands of the island from 1000 ft. [ca. 300 m] to 7000 ft [ca. 2135 m]. The collection of material of both sexes and comparison with the lectotype of *D. maligna* and holotype of *D. kirimaduhela* confirms the synonymy of these species. Kimmins had in 1958 set aside a pair of this species as the types of a new species which he never published. They are included in the material examined.

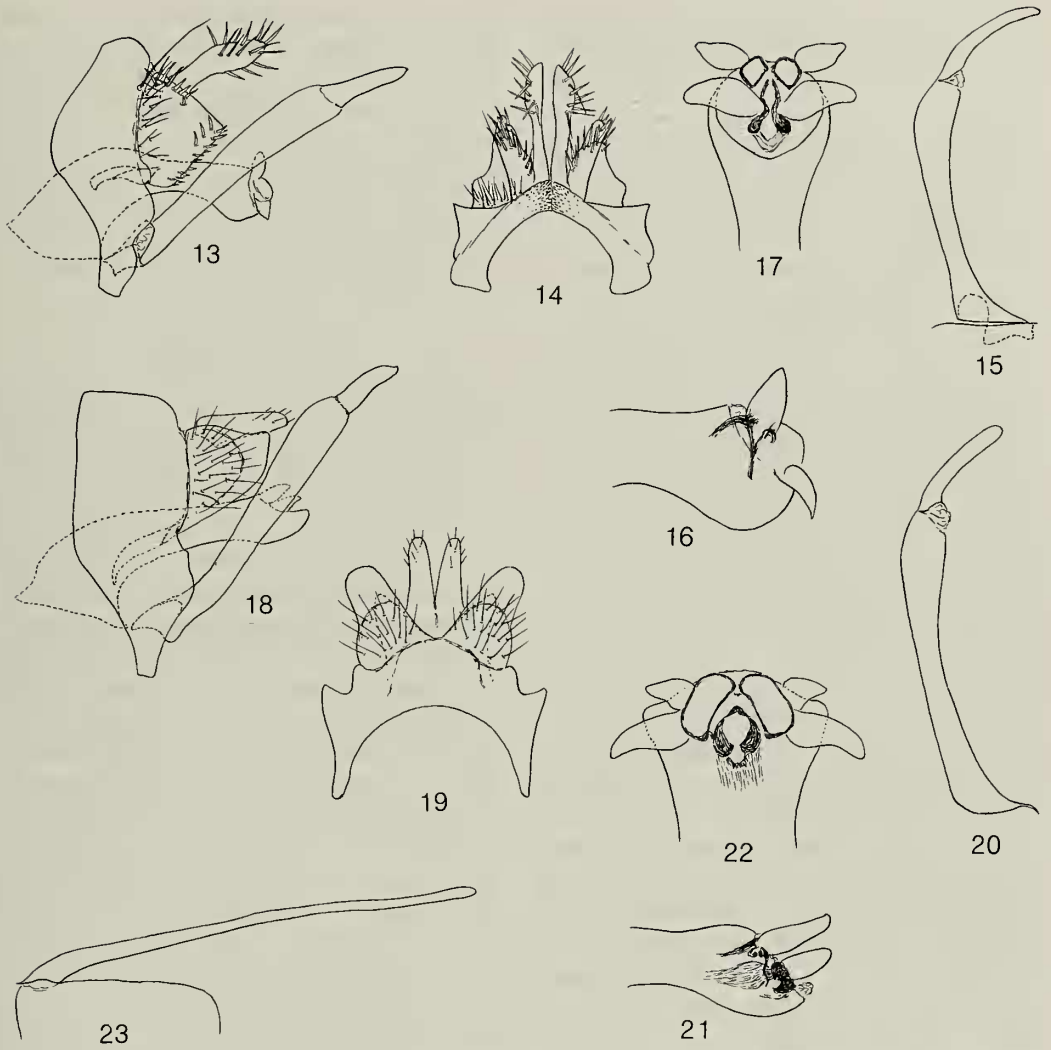
The male genitalia are shown by Schmid (1958, pl. 21, figs. 3, 4) under the name of *D. kirimaduhela.* Fork 1 is present in the hindwing of this species, but there are no internal reticulate sacs in the male abdomen only long processes from the anterolateral corners of the fifth sternum. These processes are quite variable in length, being almost twice as long as the fifth sternum in the lectotype and some other specimens, to being only slightly longer than the fifth sternum in the series from Deniyaya.

Material examined.—"Ceylon Nietner"



Figs. 1–12. Male terminalia. *D. papilionacea*: 1, lateral; 2, ninth and tenth terga, dorsal; 3, inferior appendage, posteroventral; 4, tip of phallus, lateral; 5, tip of phallus, dorsal; 6, dorsolateral margin of fifth sternum with appendage, lateral. *D. maligna*: 7, lateral; 8, ninth and tenth terga, dorsal; 9, inferior appendage, posteroventral; 10, tip of phallus, lateral; 11, tip of phallus, dorsal; 12, dorsolateral margin of fifth sternum with appendage, lateral.

[the original description states this is from Rambodde at 3500 to 4000 feet], "Hagen," "Type 11023," "Lectotype Hydropsyche maligna Hagen," 1♂ (MCZ). "Ceylan (C.P.) [Central Province, Nuwara Eliya District], Horton Plains, 7–8 III 1954, F. Schmid," "holotype ♂ Diplectrona kirimaduhela F. Schmid 1956," "Type No 71899 USNM"; same, but 23 Apr 1980, W. N. Mathis, T. Wijesinhe & L. Jayawickrema, 1♀; same, but 7000′ [2135 m], 3–4 Oct 1970, O. S. Flint, Jr., 1♂. N'Eliya [Nuwara Eliya], 6500′ [1980 m], 23-IV-23 [23 Apr 1923], 1♂, 1♀ (BMNH). 2.4 mi. [3.85 km] S. Pattipola, roadside pool, 20 Feb 1970, Davis & Rowe, 4♂, 1♀, 1 without abdomen. Lovers Leap Creek, 7000 ft. [2135 m], 15 Mar 1973, Baumann & Cross, 1♂, 1♀.



Figs. 13–23. Male terminalia. *D. malickyi*: 13, lateral; 14, ninth and tenth terga, dorsal; 15, inferior appendage, posteroventral; 16, tip of phallus, lateral; 17, tip of phallus, dorsal. *D. ingens*: 18, lateral; 19, ninth and tenth terga, dorsal; 20, inferior appendage, posteroventral; 21, tip of phallus, lateral; 22, tip of phallus, dorsal; 23, dorsolateral margin of fifth sternum with appendage, lateral.

Kandy District, Kabaragala, Nillomalai, 22–23 Mar 1975, S. & P. B. Karunaratne, 1♂, 1♀. Southern Prov., Matara District, Deniyaya, near 1000 feet elevation [ca. 305 m], 19–20 Oct 1976, Hevel et al., 8♂.

Diplectrona malickyi, new species
Figs. 13–17, 36

Diplectrona sp. (*maligna?*) Hagen.—Chantaramongkol & Malicky, 1986:528 [♂, misidentification].

This is closely related to *D. maligna* (Hagen) on the basis of size, and presence of fork 1 in the hindwing. It is easily recognized in both sexes by its coloration, being fuscous with the forewings bearing many silvery-white spots. In addition the male has its eyes much enlarged, the abdomen has a pair of small internal sacs, and its tenth tergum divided into 2 pairs of separate lobes, both bearing notably enlarged setae.

A male and female of this species were

discovered in the BMNH as types of a new species Kimmins intended to describe, but never did. This pair are included as paratypes herein.

Adult.—Length forewing, male 7–8 mm, female 9–10. Color fuscous; forewing fuscous with many small silvery-white maculae. Hind tibia of male and female bearing long, silky hair from all sides. Fifth sternum of male with anterodorsal filament, tapering apicad, directed posteriad, and almost attaining apex of sixth segment. With a pair of small internal sacs between seventh and eighth segments. Male genitalia: Ninth segment annular; anterior margin convex, posterior margin not produced ventrally. Tenth segment divided into paired inner and outer lobes; inner lobes separated mesally to base, in lateral aspect narrow and semierect and projecting beyond outer lobes half the length of these lobes, bearing many enlarged setae from apical half; outer lobes trianguloid in lateral aspect, with basal row of setae and dorsal and ventral rows of short, enlarged setae. Inferior appendages long, terete, apical segment almost half as long as basal segment in posterior aspect. Phallus tubular, elongate, angled near base; apex inflated ventrally, with a pair of dorsolateral, elongate lobes and a pair of smaller apicolateral lobes; phallotremal sclerites complex, with a pair of strongly sclerotized, ventral, rounded lobes.

Material examined.—Holotype, male: Sri Lanka, Central Province, Kandy District, Hasalaka, 1000′ [ca. 305 m], 30–31 Mar 1973, Baumann & Cross, at black light (NMNH). Paratypes: Same data, 1♀. Kandy, 22–29 Mar 1971, P. & P. Spangler, collected at black light, 1♂. Peredeniya, Hantana Hill, 2000′ [ca. 610 m], 29 Mar 1973, Baumann & Cross, 1♂. Madugoda, ca. 2600 ft. [ca. 790 m], 1 Apr 1973, Baumann & Cross, at black light, 1♀. Matale District, Elkaduwa, Hunas Falls, 3000′ [ca. 915 m], 5 Apr 1973, Baumann & Cross, 1♂, 2♀. Sabaragamuwa Province, Ratnapura District, Kalu Ganga, Indurawa Jungle, 1000 ft. [ca. 305 m], 23 Mar 1973, Baumann & Cross, collected at black light, 1♀. Uggalkaltota, Irrigation Bungalow, 350 ft. [ca. 105 m], 31 Jan–8 Feb 1970, Davis & Rowe, 1♀. Rakwana, 3-V-29 [3 May 1929], 1♂ (BMNH). North Central Province, Polonnaruwa Province, Polonnaruwa District, Polonnaruwa, 6 May 1974, Gans & Prasanna, 1♂. [Uva Prov., Monaragala Dist.], Bibile, 17-VII-29 [17 Jul 1929], 1♀ (BMNH).

Diplectrona ingens, new species
Figs. 18–23, 37

Hydromanicus papilionaceus: Ulmer, 1906: 78 [description, venation ♀ paratype (BMNH); mixed type series].

This species is very closely related to both *D. taprobanes* and *D. longistyla,* but immediately recognized by its much larger size and pair of dark, chevron-shaped marks on the posterior border of the forewing. Like the two aforementioned species, this one lacks fork 1 in the hindwing (several of the largest females have a small fork 1, and in 1 specimen it is lacking on one side and present on the other). The male genitalia of the three species are virtually identical, both *D. ingens* and *D. taprobanes* have 2 pairs of sclerites at the apex of the phallus, whereas *D. longistyla* has only 1 pair. Other aspects of the genitalia do not offer any clear-cut distinguishing characteristics for *D. ingens.*

The specimen that was the basis for the Ulmer (1906) reference was located in the BMNH. It and another example were part of the original type series of *D. papilionacea,* but are not conspecific with the lecto- and paralectotypes found in the MCZ. The male of the BMNH pair is labelled in Hagen's hand as "Hydropsyche papillionacea," and the female in Ulmer's hand as "Hydromanicus papilionaceus." Both these two and another 4 examples were set aside by Kimmins in 1958 as the types of one of his new species, but never published. They are included in the paratype series below.

Adult.—Length forewing, male 10.5–12 mm, female 12–15 mm. Color light brown;

forewings light brown marked with darker spots, posterior margin stramineous with 2 brown chevron-like marks ⅓ and ⅔ of length (females usually darker and less contrasting in marks). Hind tibia of male bearing long, silky hair from all sides. Fifth sternum of male with anterodorsal filament, tapering apicad, directed posteriad, and attaining seventh to middle of eighth segment. Male genitalia: Ninth segment annular; anterior margin slightly convex, posterior margin angled over base of inferior appendage, ventral bridge very narrow. Tenth segment divided into paired inner and outer lobes; inner lobes separated mesally for more than half length, in lateral aspect barely surpassing outer lobes; outer lobes with large, bulging, setate wart basally, distal margin thin and angulate. Inferior appendages long, terete, apical segment a third as long as basal segment in posterior aspect. Phallus tubular, elongate, curved from base; apex slightly inflated, with 2 pairs of elongate dorsolateral lobes (lateralmost pair in holotype, figured, are larger than in most paratypes) and a ventral scoop-like structure; phallotremal sclerites complex, with a pair of strongly sclerotized, ventral, beanlike lobes.

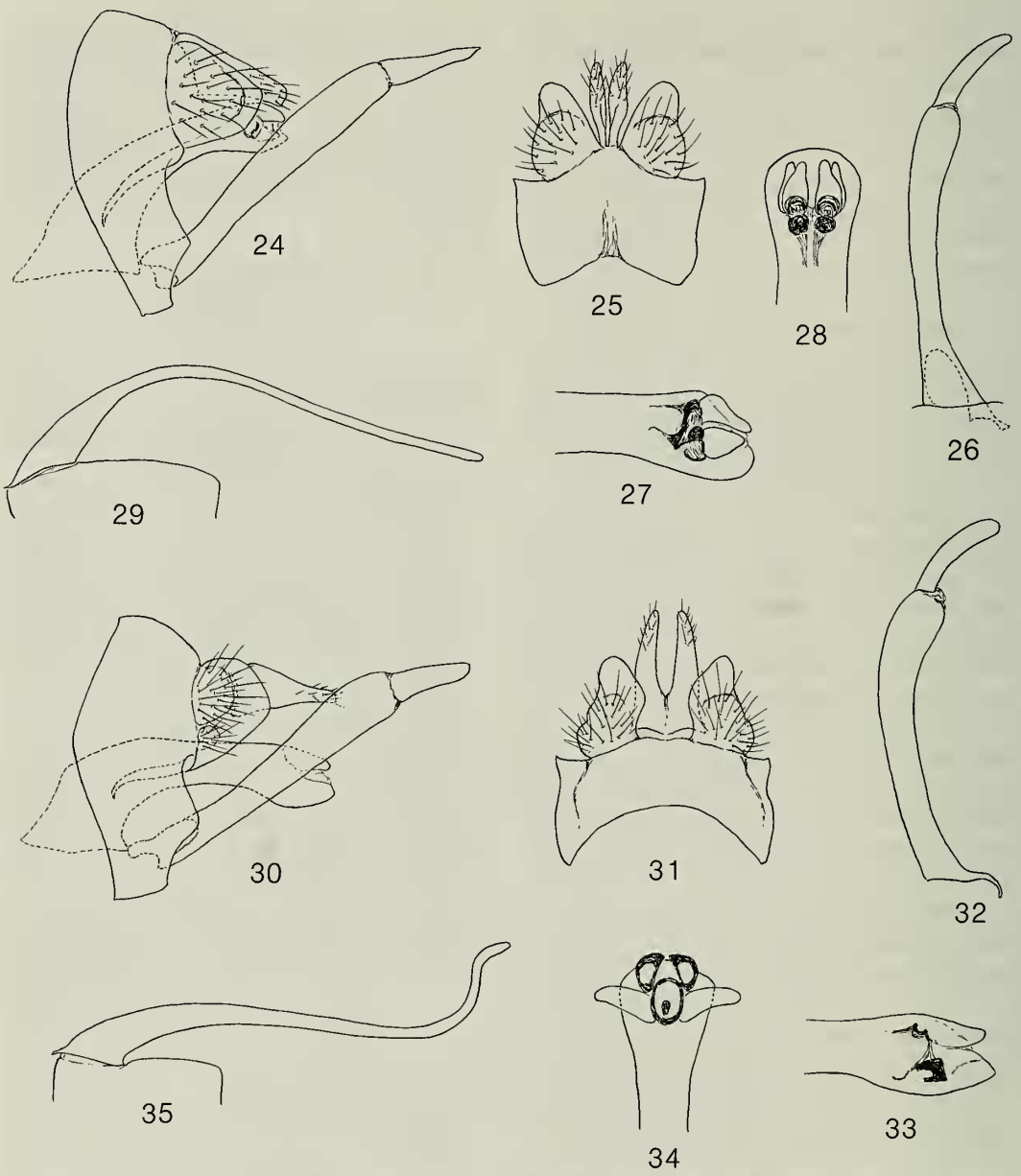
Material examined.—Holotype, male: Sri Lanka, Central Province, Nuwara Eliya District, Pattipola, 6100′ [ca. 1860 m], 3–6 Oct 1970, O. S. Flint, Jr. (NMNH). Paratypes: Same data, 3♀. Horton Plains, 7000′ [ca. 2130 m], 3–4 Oct 1970, O. S. Flint, Jr., 1♀. Agrapatana Rd., Horton Plains, 6600′ [ca. 2010 m], 4 Oct 1970, O. S. Flint, Jr., 3♀. Ohiya, 17 Apr, 1♂; same, but 21 Apr, 1♂, same, but 28 Apr, 1♂, 1♀ (BMNH). High Forest, Kurundu Oya, 5000 ft. [ca. 1525 m], 18 Mar 1973, Baumann & Cross, 1♂, 2♀. Ambawela, 5000 ft. [ca. 1525 m], 14 Mar 1973, Baumann & Cross, 3♂. Hakgala Botanic Garden, 1650 mtrs., 23–25 Feb 1977, K. V. Krombein et al., blacklight, 3♂; same data, but 6–8 Oct 1976, 1♀; same, but 6 Oct 1970, O. S. Flint, Jr., 1♂. Hakgala Botanic Garden, Circuit Bungalow, 5–8 Feb 1979, K. V. Krombein et al., blacklight, 2♂. Uva Province, Badulla District, Kande-Ela Reservoir, 6200′ [ca. 1890 m], 1–5 Oct 1970, O. S. Flint, Jr., 1♂. Ceylon [only data], 1♂ labelled by Hagen "Hydropsyche papillionacea," 1♀ labelled by Ulmer "Hydromanicus papilionaceus" (BMNH).

Diplectrona taprobanes (Hagen), new combination
Figs. 24–29, 38

Hydropsyche taprobanes Hagen, 1858: 487.—Ross, 1952:33 [lectotype ♂].
Hydromanicus taprobanes: Ulmer, 1905:98 [in key only, to *Hydromanicus*].
Diplectronella taprobanes: Ulmer, 1928: 317 [to *Diplectronella*].—Mosely, 1931: 197 [venation, genitalia ♂].—Schmid, 1958:119 [variation, distribution].—Fischer, 1963:151; 1972:153 [bibliography].—Weaver, 1993:41 [lectotype MCZ 11021, listed].

This is the commonest and most widespread species on the island of Ceylon. It is known from low to high elevations, but seems commonest at elevations in the range of 300 to 3000 meters. The genitalia have been well illustrated by Mosely (1931), but are figured here, especially for comparative purposes. There seems to be considerable variation in the appearance of the tenth tergum, as already noted by Schmid (1958). Fork 1 is lacking in the hindwing of the species, as it is in *D. ingens* and *D. longistyla.* For specific differences between these three species see their diagnoses.

Material examined.—"Ceylon Nietner" [the original description states this is from Rambodde at 3500 to 4000 feet], "Hagen," "Type 11021," "Lectotype Hydropsyche taprobanes Hagen," ♂ lectotype (MCZ). The NMNH has over 650 specimens, from about 75 localities in the following provinces and districts: Central Province—Kandy District, Matale District, Nuwara Eliya District; Eastern Province—Ampari District; North Central Province—Anuradhapura District; Sabaragamuwa Province—Ke-



Figs. 24–35. Male terminalia. *D. taprobanes*: 24, lateral; 25, ninth and tenth terga, dorsal; 26, inferior appendage, posteroventral; 27, tip of phallus, lateral; 28, tip of phallus, dorsal; 29, dorsolateral margin of fifth sternum with appendage, lateral. *D. longistyla*: 30, lateral; 31, ninth and tenth terga, dorsal; 32, inferior appendage, posteroventral; 33, tip of phallus, lateral; 34, tip of phallus, dorsal; 35, dorsolateral margin of fifth sternum with appendage, lateral.

galle District, Ratnapura District; Southern Province—Galle District, Hambantota District, Matara District; Uva Province—Badulla District; Western Province—Colombo District, Kalutara District.

Diplectrona longistyla, new species
Figs. 30–35, 37

This is clearly the sister species of *D. taprobanes,* not only the coloration but the

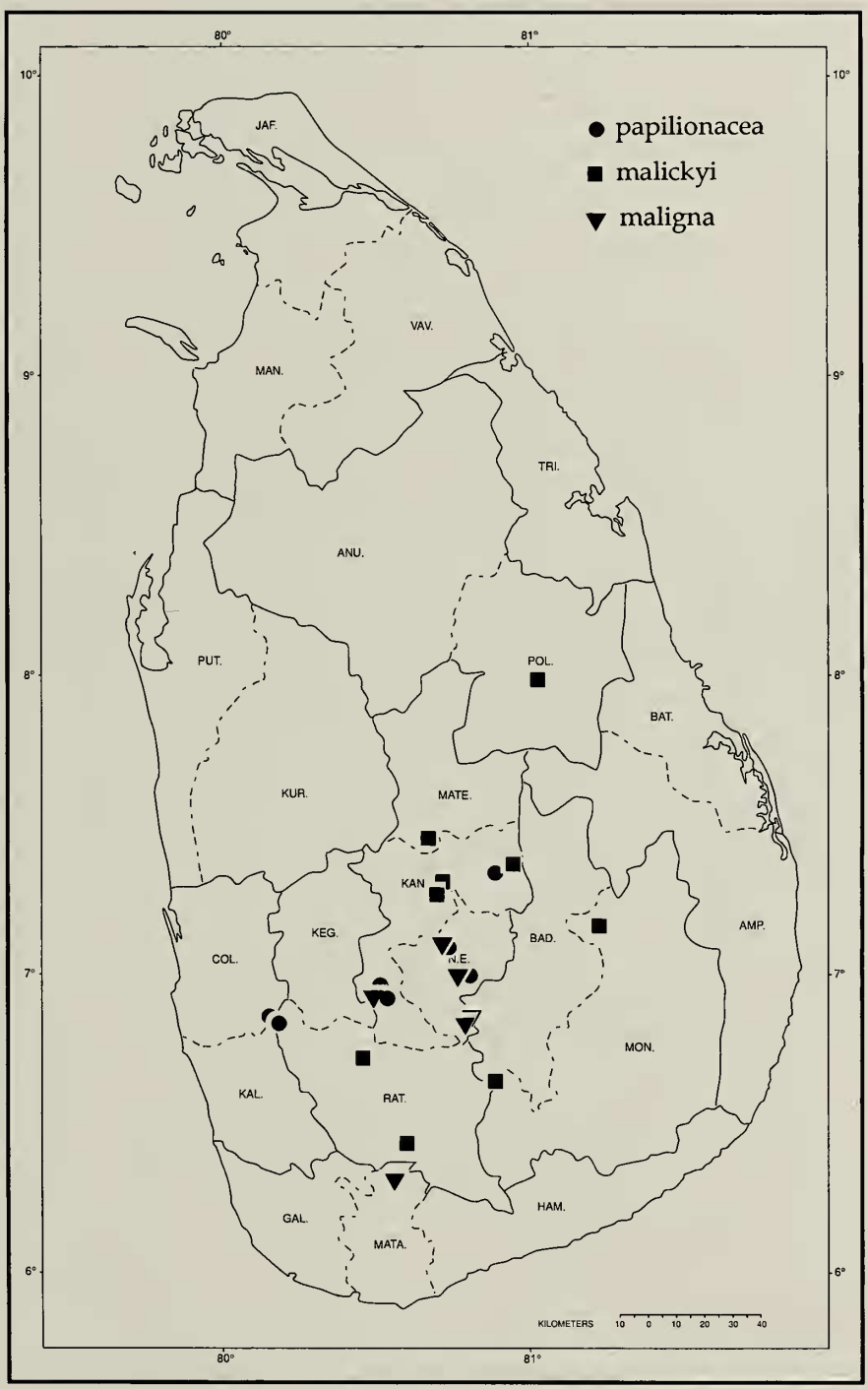


Fig. 36. Distribution on Sri Lanka of *D. papilionacea, D. malickyi,* and *D. maligna.* Two to four letter abbreviations are of names of Districts.

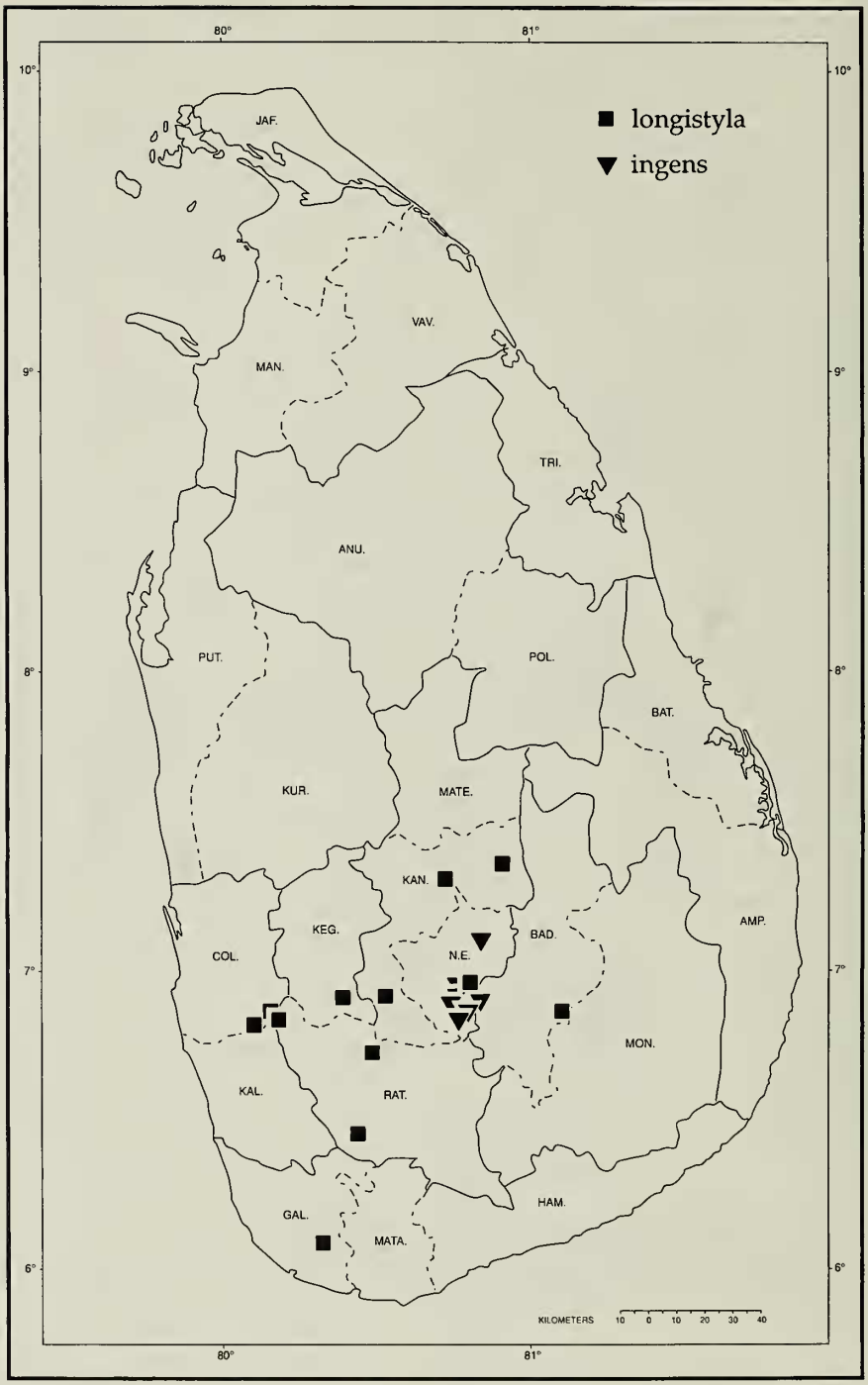


Fig. 37. Distribution on Sri Lanka of *D. longistyla* and *D. ingens*. Two to four letter abbreviations are of names of Districts.

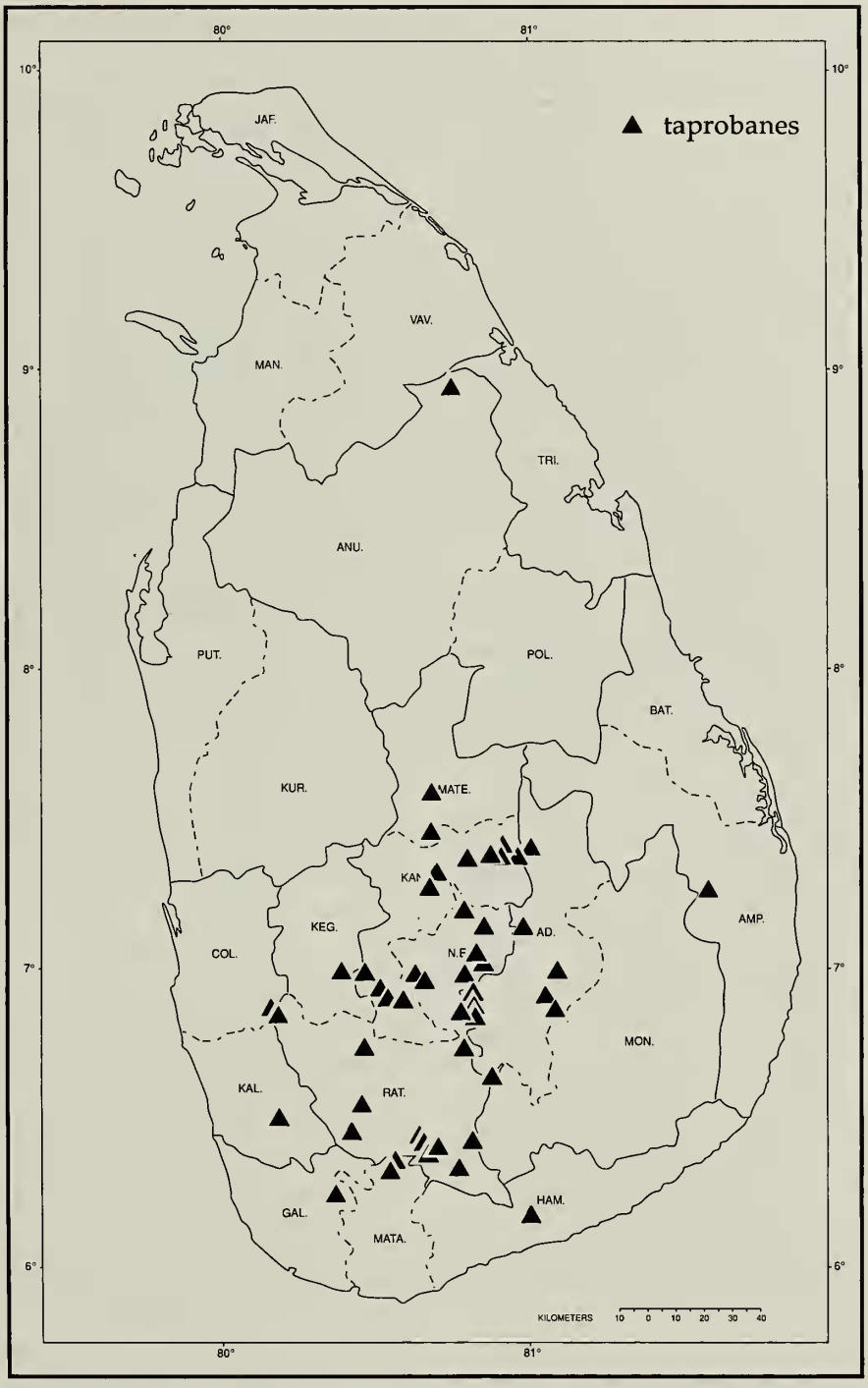


Fig. 38. Distribution on Sri Lanka of *D. taprobanes*. Two to four letter abbreviations are of names of Districts.

overall male genitalia are nearly identical and both lack fork 1 in the hindwing. The lateral style of the fifth sternum is longer in this species, reaching at least into the eighth segment or more often to the inferior appendages (depending on the degree the body segments are telescoped), but only into the seventh segment in *D. taprobanes.* It is further distinguished by the presence of only a single pair of apical processes at the tip of the phallus instead of two as in *D. taprobanes.* The shapes of the inner and outer lobes of the tenth tergum are quite variable in both species and overlap to some degree, but *D. taprobanes* only rarely has an elongate, rather narrow inner lobe as seen in lateral aspect as is typical of *D. longistyla* and shown here.

Adult.—Length forewing 8–9 mm. Color brown; a band of stramineous hair posteriad from head, thorax and along posterior margins of forewings; forewings brown marked with stramineous spots, posterior margin stramineous with brown incursion from front at one and two thirds of length (sometimes this stramineous band is not developed and the area is simply spotted with stramineous hair). Hind tibia of male bearing long, silky hair from all sides. Fifth sternum of male with anterodorsal filament, tapering apicad, directed posteriad, and attaining middle of eighth segment up to bases of inferior appendages. Male genitalia: Ninth segment annular; anterior margin slightly convex, posterior margin produced over base of inferior appendage. Tenth segment divided into paired inner and outer lobes; inner lobes separated mesally almost to base, in lateral aspect usually narrowed apically and projecting beyond outer lobes the length of these lobes; outer lobes with large, bulging, setate warts basally, distal margin thin and angulate. Inferior appendages long, terete, apical segment a third as long as basal segment in posterior aspect. Phallus tubular, elongate, angled near base; apex slightly inflated, with a pair of dorsolateral, elongate lobes and a ventral scoop-like structure; phallotremal sclerites complex, with a pair of strongly sclerotized, ventral, bean-like lobes.

Material examined.—Holotype, male: Sri Lanka, Western Province, Colombo District, Tunmodera, 200′ [ca. 60 m], 17 Nov 1970, O. S. Flint, Jr. (NMNH). Paratypes: Same, data 9♂. Labugama, 400 feet [ca. 120 m], 24 Aug 1973, G. Ekis, 1♂. Padukka, 300′ [ca. 90 m], 16 Nov 1970, O. S. Flint, Jr., 2♂. Central Province, Kandy District, Kandy, 21 Feb 1971, Piyadasa & Somapala, 2♂. Madugoda, 2600′ [ca. 800 m], 24 Nov 1970, O. S. Flint, Jr., 2♂. 2.5 mi. [ca. 4.0 km] NE Laksapana, 2700′ [ca. 820 m], 26 Nov 1970, O. S. Flint, Jr., 3♂. Nuwara Eliya District, Hakgala Botanic Garden Circuit Bungalow, 5–8 Feb 1979, Krombein et al., 1♂. Uva Province, Badulla District, Koslanda, Diyaluma Falls, 3000 ft [ca. 915 m], 19 Mar 1973, Baumann & Cross, 1♂. Sabaragamuwa Province, Ratnapura District, Gilimale Lumber Mill, 115 ft [ca. 35 m], 20–25 Oct 1976, Hevel et al., 2♂. 2 mi. [ca. 3.2 km] S of Weddagala, Sinharaja Jungle, 6–12 Feb 1977, Krombein et al., 4♂. Southern Province, Galle District, Kottawa Forest Reserve, 10–11 Jan 1975, Krombein et al., 1♂.

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